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| LEE, HONG, DEGERMAN, KANG & WAIMEY<br>660 S. FIGUEROA STREET<br>Suite 2300<br>LOS ANGELES, CA 90017 |             |                      | EXAMINER<br>WANG, JIN CHENG     |                             |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/603,451 | <b>Applicant(s)</b><br>HONG, CHANG HEUI |  |
|                              | <b>Examiner</b><br>JIN-CHENG WANG    | <b>Art Unit</b><br>2628                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/11/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 51-53, 56-63 and 71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51-53, 56-63 and 71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Response to Amendment***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/11/2009 has been entered. Claims 1-50, 54-55, and 64-70 have been canceled. Claim 51-53, 57 and 60 have been amended. Claim 71 has been newly added. Claims 51-53, 56-63 and 71 are pending in the application.

***Response to Arguments***

Applicant's arguments filed 3/11/2009 have been fully considered but are not found persuasive in view of the new ground(s) of rejection set forth in the present Office Action.

As addressed below, Song discloses the claim limitations of displaying a rotated version of the image on the display screen (Figs. 8A-8E), in response to a user interacting with the mobile communication terminal to affirmatively control direction of rotation for the image (Figures 8A-8E), wherein the image is rotated (Fig. 8D), relative to the display screen, at approximately a ninety degree angle and resized (Fig. 8C) so that the rotated image is displayed in entirety in a first display area of the display screen, wherein the rotated image comprises a scaled version of the image, and wherein the rotated image is a scaled version of the image in its entirety (Figs. 8A-8E and column 6-7), and displaying at least first and second icons in a second display area of the display screen (Figs. 8A-8E), wherein the first and second display areas are

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non-overlapping (*Figs. 8A-8E*), and wherein the first and second icons are associated with functions for controlling image display on the mobile communication terminal and wherein the second display area represented by an area formed between at least one edge of the display screen and one edge of the image, in response to rotating and resizing the image (*Figs. 8A-8E* and column 6-7 wherein the second display area is the defined by the display area unoccupied by the image including the icon area 34 in the display screen 32).

With respect to the claim construction by Applicant, Applicant attempted two definitions with respect to the claim limitation of aspect ratio set forth in a single claim, e.g., the base claim 51. Applicant first defines the aspect ratio to be width:height=2:4 and this redefines the aspect ratio to be height:width=1:2. Applicant cannot change the definition of the aspect ratio. If the aspect ratio is defined to be a width divided by a height for the original image, the same definition should be applied to the adjusted image. However, Applicant erroneously redefines the aspect ratio to be a height divided by a width which is an inverse to the aspect ratio defined earlier as a width divided by a height. Applicant's arguments are self contradictory.

The claim 51 also requires the icons to be displayed in the second display areas “wherein the first and second display areas are non-overlapping” is not enabled in applicant's specification. This claim limitation is more specific than the description set forth in applicant's specification.

With regards to the claim limitation of “non-overlapping”, Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register *Figs. 4-5*). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image so as to fit into the mobile communication device, and

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wherein the third image is a scaled and rotated version of the first image in its entirety so as to fit into the mobile communication device (Register Figs. 4-5). Register discloses the second image in Fig. 5 has a width C and a height D and the first image in Fig. 4 has width A and a height B in which the width C of the second image corresponds to the width A of the display, and the height D of the second image corresponds to the height B. It would have been obvious from the first image of Fig. 4 and the second image of Fig. 5 to see that C is approximately equal to A and D is approximately equal to B. Thus, D is approximately equal to  $A \cdot A/B$  as claimed when  $A=B$ . Song teaches at Figs. 8A-8E that the action of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be arbitrarily re-sized such that  $C = A$  and D can be resized to be any dimension including the value determined by  $A \cdot A/B$ .

Uyehara discloses in Fig. 18 that the entire texts of the first image in Fig. 17 are rotated and presented in its totality as a third image in Fig. 18 so as to fit into the mobile communication device wherein the third image has to be scaled when the height and width are not equal. A reflow of the texts in the third image of Fig. 18 has been shown in Fig. 18. Applicant argues that displaying some of the text(s) in the display area is inconsistent with displaying the text in entirety in the display area. Applicant cannot equate text(s) with the claimed image(s). The third image in Fig. 18 is displayed in entirety regardless of whether or not less text characters are displayed in the rotated image. The third image of Fig. 18 displays all the texts of the Fig. 17 or all the image contents of the first image as required by the claim 51.

Applicant's disclosure at Paragraph 0022 discloses directional keys or keypad buttons are pressed to rotate the images. This passage discloses rotating the image(s) as well as icon(s)

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requires pressing the directional keys or keypad buttons so as to place the mobile communication terminal in the rotation mode. The Specification discloses that the first and second icons are displayed after the mobile communication terminal to be placed in the rotation mode. Moreover, the rotated image may or may not provide some empty space on either the top or bottom when  $A=B$  and therefore, the icons are definitely overlapped with the rotated image. The concerned issue is not whether the specification discloses “an empty space”. As indicated in Fig. 3, the icons are located in the lower-end of the display screen, creating some empty space on the top, on the right, or on the left of the display screen would not necessarily provide the claimed feature that the icons, located in the second display area, are non-overlapping with the first display area. Even assuming for argument sake that applicant has support for the claimed empty space, applicant still failed to support the claim limitations structurally set forth in the claim 51. First of all, from applicant’s argument, applicant is not sure where the empty space is located. The specification does not specifically disclose, by any means, where the empty space is located. Even from applicant’s arguments, applicant cannot determine and is uncertain based on the specification the location of the empty space if an empty space ever exists. The claimed empty space may be located anywhere on the display screen. The empty space may also be located on the left-hand-side or the right-hand-side of the display screen. The empty space may also be created in a display screen space below the icons and the icons still overlap with the claimed first display area. Secondly, applicant has not made a case the claimed second display area having located therein the claimed icons has anything to do with the empty space. Third, applicant failed to provide the necessary description in the specification such that the claimed feature is duly supported in the manner described in applicant’s specification, not supported by applicant’s arguments.

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Applicant's specification failed to point out that the empty space has any relationship with the second display area for displaying the icons. Merely having empty space located anywhere does not mean the specific claim limitations are supported by the specification wherein the claim limitations define a specific scope of invention.

The specification does not describe whether the empty space is on the top or bottom, or left or right. The specification does not describe whether the empty space has any bearing with the icons located within the claimed second display area. An image is scaled and may create an empty space. However, having an empty space in the display screen of the mobile device is remote from establishing that the claim limitation that the claimed second display area which displays at least the first and second icons. Thus claim limitation the first and second display areas are non-overlapping is more specific than what the specification has described.

With regards to the claim limitation of non-overlapping, Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

Applicant pointed to the Fig. 2 and Fig. 3B of the specification. Fig. 2 shows an image having a size of  $A*B$  and Fig. 3B shows an image of a size of  $C*D$ . The display image having a size  $C*D$  as displayed in Fig. 3B occupies the whole display screen. There is no empty space being created. Moreover, the icons completely overlap with the image of a size  $C*D$  as shown in Fig. 3B.

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Applicant has been using the size C and D for the transformed image through applicant's specification. Applicant's specification is deficient in support applicant's newly amended claim 51. For one reason, the icon lies nowhere but overlapping with the image having a size C\*D. Namely, the icons are overlapped with the image having a size fitting into a small display of the mobile display device. However, applicant's claim 51 requires that the icons are not overlapping with the image which applicant argues may be an inherent feature. The examiner respectfully disagrees with applicant's argument. Applicant's specification is deficient in supporting applicant's newly added claim 51.

The icon in Fig. 3B lies within the second image area and thus overlaps with the first image area. The icon cannot be placed anywhere except overlapping/intersecting with the claimed first display area. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a rotated image in a first display area of the display screen". Neither Applicant's Exhibit 1 nor Specification provides a support to the claim language set forth in the claim 51. However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51 and similar claims.

It is acknowledged that applicant's submission of Exhibit 1 has been also considered. However, the sizes of the images set forth in the Exhibit 1 are different from the images in Figs. 2-3D as originally disclosed in applicant's specification. In an apparent effort to remedy the deficiencies in the specification with regards to the enablement requirements, applicant accordingly submitted Exhibit 1. However, the Exhibit 1 shows a first image of a different size from the first image in Fig. 2, which is inconsistent with the specification's statement that the first



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image has a height B and width A. Although applicant's creativity is appreciated, the Exhibit 1 redefines the first image to have a height C' and width D'. Applicant's original specification does not use notations for the sizes of the second image and the first image other than A, B, C and D. However, applicant's Exhibit 1 introduces some new notations C' and D' other than A, B, C and D and the original specification discloses the length of the display unit 103 is adjusted by adjusting the aspect ratio of the display unit 103 (See Paragraph 0025) and the image has to fit into the small display of the mobile display device.

Moreover, since Exhibit 1 introduces new notations and describes something in contrary to what have been disclosed in the original specification, the original specification is relied upon in consideration of the claim 51's claim languages. For the same reason discussed above, the Exhibit 1 cannot be used in lieu of applicant's specification to support the relationship  $D=A \cdot A/B$ . Moreover, the Exhibit 1 is not a part of the original specification and was provided during the prosecution of the present application. Exhibit 1 cannot be used to support the claim limitations set forth in the claim 51 for the reasons that the images in Exhibit 1 do not show the claimed icons set forth in the claim 51. Exhibit 1 does not support the claim language that "the second image is displayed in entirety in the first display area of the display screen" and thus has nothing to do with the claim limitations set forth in the claim 51. If the Exhibit 1 were to be accepted as a supplement to the specification otherwise, it would lead to a contradiction with the original specification's disclosure. Moreover, the images in Exhibit 1 are not even related to the display areas in a mobile communication device. Exhibit 1 does not provide further clarification to the claimed feature of non-overlapping between the first image area and the second image area.

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Therefore, Exhibit 1 is deficient and does not provide any clarification to the claim languages set forth in the claim 51.

In Remarks, Applicant argues in essence with respect to the claim 52 that adjusting a width or a height of the second image would not result in the change in the aspect ratio of the adjusted image. These arguments are fatally flawed because Applicant gives an example of changing both the width and the height of the second image. However, the claim 51 requires adjusting a width OR a height of the second image which results in the change in the aspect ratio. Adjusting a width changes the aspect ratio of the adjusted image from that of the original image. Adjusting a height changes the aspect ratio of the adjusted image from that of the original image. Moreover, Applicant's definition of aspect ratio set forth in the arguments in Remarks of Page 9 is fatally flawed in that Applicant first defines the aspect ratio to be width:height=2:4 and this redefines the aspect ratio to be height:width=1:2. Applicant cannot change the definition of the aspect ratio. If the aspect ratio is defined to be a width divided by a height for the original image, the same definition should be applied to the adjusted image. However, Applicant erroneously redefines the aspect ratio to be a height divided by a width which is an inverse to the aspect ratio defined earlier as a width divided by a height. Applicant's arguments are self contradictory.

Applicant argues that Uyehara is not directed to viewing "a photographic image" as claimed. However, Uyehara discloses graphics images in column 4, lines 60-67 and graphics image includes a photographic image.

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Applicant argues in Item 2 in Page 7 with respect to the claim limitation that “the first and second display areas are non-overlapping”. However, this limitation is not even supported by applicant’s specification.

Applicant argues with respect to the claim limitation in the claim 57 that “the second image has approximately same aspect ratio as the first image”. Applicant’s Fig. 2 and Fig. 3B discloses the first image having a width A and height B and the second image having a width C and height D in a mobile communication display having the same size of the display screen (as a matter of fact, according to applicant’s embodiment in Fig. 2 and Fig. 3B, C=A and D=B as evidenced in applicant’s originally filed claim 13 in which the length A is adjusted in size to be the length C and the originally filed claim 1 also recites changing the size of the first image to the size of the second image). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argued in Paragraph 1 of Page 10 in Remarks that “the aspect ratio of the display unit 103 is changed from A:B to C:D in order to prevent the image from being distorted.” This statement failed to support applicant’s claim limitation that “the second image has approximately same aspect ratio as the first image.” According to applicant’s newly filed arguments, applicant employed an alternative embodiment that  $C=A$  and  $D = A \cdot A/B$  to support the newly filed amendment. However, the aspect ratio of the new image having the size C\*D is now changed to  $C:D = A / (A \cdot A/B) = B/A$  which is the inverse of the aspect ratio of the original image having the size A\*B. Applicant failed to support the claimed feature that the second image has approximately same aspect ratio as the first image.

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Nothing can be found in the figures as to the second image has been sized differently. This feature is exactly the same as Uyehara's portrait and landscape modes for displaying the images (texts are also images when displayed) in which the length of the second image is adjusted in size from the length of the first image. Uyehara discloses in column 4, lines 60-65 the graphics image which includes a photographic image. Thus, in Uyehara, the rotation of images is not necessarily limited to the text images in the figures. The graphics images can be rotated as similar to the text images. Therefore, Uyehara meets the claim limitation that the second image has approximately same aspect ratio as the first image, as set forth in the claim 57.

USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be read into the claim. E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.").

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Applicant argues that Uyehara is only concerned with changing the orientation of the displayed texts and it does not suggest adjusting the image size so that it fits in the display. However, adjusting the image size so that it fits in the display means that the second image necessarily has the size  $C=A$  and  $D=B$ . Applicant's original specification lacks a showing that the second image and the first image are sized according to the notations other than A, B, C and D. Applicant argues that the produced result is not a rotated version of the same "photographic image" adjusted in size to fit in the display. This argument does not make sense. The first image and the second image are recited in the claims and the second image does not have to be exactly the same as the first image, as required by the claims. Uyehara's Fig. 18 clearly shows a second image is a rotated version of the first image in Fig. 17 and the second image in Fig. 18 is adjusted in length from the first image in Fig. 17 because the claims do not require that the second image have to be the same as the first image or there has to be a one-to-one mapping relationship between the pixels of the first image and the pixels of the second image.

Applicant argues with respect to Uyehara and Register in Item 6 of Page 8 the claim limitation that "the first and second display areas are non-overlapping." However, according to the applicant's specification, Fig. 2 shows an image having a size of  $A*B$ . Fig. 3B shows an image having a size of  $C*D$  wherein the icon lies in the display area overlapping with the image having a size  $C*D$ . The icon lies nowhere but overlapping with the image having a size  $C*D$ . Applicant stated in Page 6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon in Fig. 3B lies within the second image area and thus overlaps with the second image area. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51

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recites that “displaying at least first and second icons in a second display area” and “displaying a second image in a first display area of the display screen”. However, nowhere in the specification discloses that “the first and second display areas are non-overlapping” as required by the claim 51 and similar claims.

In response to applicant’s argument that the cited Register is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Register discloses a set of soft icons on the display screen of a handheld device. Whether Register has to toggle buttons outside the display screen does not matter. The embodiment of a set of soft icons meets the claim limitation of “icons” set forth in the claims. Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

Moreover, applicant’s claim 51 does not recite any functionality associated with the claimed icons. Applicant’s claim 51 only requires the display area for icons to be non-overlapping with the display area for the image. However, applicant argues with respect to the functionalities of the icons, i.e., the selection of icons by arguing that Register requires to toggle a single button toward a first direction that allows a user to choose a first soft icon. However, applicant’s claim 51

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is not even related to the selection of icons whatsoever, rendering the argument invalid.

Applicant's argument is irrelevant to the claim limitations set forth in the claim 51 and similar claims.

Applicant argues with respect to the combination of Uyehara and Register for the obviousness rejection set forth in the previous Office Action by arguing that Uyehara's filing post dates that of Register's by about three years. This argument is irrelevant in view of the obviousness type rejection based on the prior art references. Long before the time the claimed invention was made, Uyehara and Register has taught the claim limitations set forth in the claim 51 and similar claims. Moreover, Register is published long time before Uyehara and thus Uyehara is aware of the Register's teaching at the time Uyehara made his invention. Uyehara does not have to repeat Register's experimentation. Finally, the filing dates of both references are prior to the applicant's filing date. The prior art references can be combined accordingly with the motivations to combine the references.

Applicant argues that Applicant invites the Examiner to point out the alleged motivation to combine the references. However, the Office Action clearly cited the motivation to combine the references. According to MPEP, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's

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disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

In the present case, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to have placed the software controlled markers of Uyehara outside the images to be rotated according to the teaching of Register that the soft keys are placed outside of the images to be rotated. Both references teach the rotation of the images in accordance with the icons or soft keys. Placing the soft keys or icons outside the images to be rotated is old and well known in the art as evidenced in the Register's reference. Uyehara teaches or suggests the claim limitation by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

Moreover, whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method allowing a user to select the icons outside of the images in order not to obscure the images with the icons and these motivation statements can be found in Register and Uyehara (See Uyehara Figs. 17-18 and column 6, lines 21-36 and Register Figs. 4-5) because Uyehara teaches or suggests the claim



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limitation of the icons to be non-overlapping with the displayed images by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

### ***Specification***

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 51-53 and 56-63 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, the base claim 51 recites, “displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping”.

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Applicant speculated the claim limitation of "displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping".

However, according to applicant's specification at FIG. 3B, an image of size C\*D has been shown and the icon E is overlapping with the image of size C\*D. Although applicant's specification at Paragraph 0024 stated "an empty space may be generated on lower end of the image on the display unit 103", nothing has been disclosed in the specification as to how the empty space is related to the icons at issue. Moreover, this is remote from the claim limitation of displaying at least first and second icons in a second display area of the display screen wherein the first and second display areas are non-overlapping. Finally, applicant's specification does not support the limitation of "wherein the first and second display areas are non-overlapping" set forth in the claims 51-53, 56, 58-59 and 61.

Applicant's Fig. 2 shows an image having a size of A\*B and Fig. 3B shows an image having a size of C\*D wherein the icon lies in the display area overlapping with the image having a size C\*D. The icon E lies nowhere but overlapping with the image having a size C\*D. Applicant stated in Page 6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon E in Fig. 3B overlaps with the second image. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a second image in a first display area of the display screen". However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51.

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With respect to the claim construction by Applicant, Applicant attempted two definitions with respect to the claim limitation of aspect ratio set forth in a single claim, e.g., the base claim 51. Applicant first defines the aspect ratio to be width:height=2:4 and this redefines the aspect ratio to be height:width=1:2. Applicant cannot change the definition of the aspect ratio. If the aspect ratio is defined to be a width divided by a height for the original image, the same definition should be applied to the adjusted image. However, Applicant erroneously redefines the aspect ratio to be a height divided by a width which is an inverse to the aspect ratio defined earlier as a width divided by a height.

The claims 52-53 and 56 depend upon the claim 51 and are rejected due to their dependency on the claim 51.

The claim 57 further recites “wherein at least one of a width and a height of the rotated image is adjusted in size so that the rotated image is displayed in entirety in a first display area of the display screen and has approximately same aspect ratio as the image in an un-rotated state.” However, at least one of a width and a height of the rotated image being adjusted in the manner as disclosed in the specification means that the aspect ratio has changed. The second image cannot have approximately same aspect ratio as the first image. Moreover, the Fig. 3B does not support the claim feature, a width and a height of the rotated image is not adjusted in size and thus the limitation is not supported by applicant’s specification.

Applicant argued in Remarks that “the aspect ratio of the display unit 103 is changed from A:B to C:D in order to prevent the image from being distorted.” This statement failed to support applicant’s claim limitation that “the rotated image has approximately same aspect ratio as the image.” According to applicant’s newly filed arguments, applicant employed an alternative

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embodiment that  $C=A$  and  $D = A*A/B$  to support the new amendment. However, the aspect ratio of the new image having the size  $C*D$  is now changed to  $C:D = A/ (A*A/B) = B/A$  which is the inverse of the aspect ratio of the original image having the size  $A*B$ . Applicant failed to support the claimed feature that the second image has approximately same aspect ratio as the first image.

The claim 58 is also subject to the same rationale of rejection set forth in the claim 51.

The claims 58-63 depend upon the claim 57 and are rejected due to their dependency on the claim 57.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 51-53, 56-63 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uyehara et al. U.S. Patent No. 6,154,214 (hereinafter Uyehara) in view of Register U.S. Patent No. 5,661,632 (hereinafter Register) and Song US Patent No. 6,748,185 (hereinafter Song).

Re Claim 51:

Uyehara discloses a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

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Displaying an image on a display screen of a hand-held mobile communication terminal configured to communicate voice data in a wireless communication network (*at column 4, lines 60-65 and column 5, lines 1-10 Uyehara teaches that the device plays sound clips and includes a speech synthesizer to communicate audible output or digital audio signals; column 4, lines 35-50 wherein the device directly downloads graphics images from the Internet*), wherein the first image comprises a photographic image (*at column 4, lines 60-65 Uyehara teaches that the graphics image include a photographic image*);

Displaying a rotated version of the image on the display screen (Figs. 17-18), in response to a user interacting with the mobile communication terminal to affirmatively control direction of rotation for the image (column 12, lines 1-33), wherein the image is rotated, relative to the display screen, at approximately a ninety degree angle and resized so that the rotated image is displayed in entirety in a first display area of the display screen, wherein the rotated image comprises a scaled version of the image, and wherein the rotated image is a scaled version of the image in its entirety (*The limitation is given the broadest reasonable interpretation, see Figs. 17-18. Fig. 18 displays an image including the first image in Fig. 17 in its entirety and the width or height of the image has been adjusted and thus the image of Fig. 18 is both a scaled and rotated version of the first image in Fig. 17 in its entirety, i.e., all texts in Fig. 17 are displayed in Fig. 18*), and

Displaying at least first and second icons in a second display area of the display screen (*Fig. 17 discloses four fixed icons; see column 6, lines 9-20*), wherein the first and second display areas are non-overlapping (*rotation icon 80 as well as other icons are non-overlapping with the image having the text area*; *see Figs. 17-18; additionally the soft keys/icons are*

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*overlapped with the image having the text area; column 12, lines 1-35 and column 6, lines 9-20), and wherein the first and second icons are associated with functions for controlling image display on the hand-held mobile communication terminal and wherein the second display area represented by an area formed between at least one edge of the display screen and one edge of the image, in response to rotating and resizing the image (rotation icon 80 as well as other icons are non-overlapping with the image having the text area; see Figs. 17-18; Figs. 17-18 and column 12, lines 1-35 and column 6, lines 9-20).*

In other words, Uyehara further discloses rotating an image displayed on the display unit (*e.g., rotating the first image displayed on the Fig. 17*), in a first direction (*e.g., in a portrait mode*) relative to the display unit, to display a second image (*in response to the user's pressing of the orientation key 80 to display a second image in landscape mode*) and adjusting dimension and orientation of the second image relative to dimensions of the display unit (*the dimensional configuration of the image displayed in Fig. 18 are different from the dimensional configuration of the first image displayed in Fig. 17 in the portrait mode and the texts are redisplayed with the orientation shown in Fig. 18, see column 12. Adjusting the display orientation of the first image also adjusts the dimensional configuration of the second image in Fig. 18 in accordance with the width and height of the display unit. In Uyehara, the second image is obtained from the first image by rotating the first image and the text characters are re-arranged in a digital document. Due to image rotation, the original text characters displayed in the first image may not fit into the display area for the second image. Uyehara simply discloses that the text characters are re-arranged or reflowed after the first document image has been rotated. Having less text characters displayed in a third image does not mean Uyehara teaches away from the claimed*

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*limitation that the third image is a rotated version of the first image in its entirety), wherein the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode (the icons/markers are displayed regardless of the orientation mode of the mobile device or without requiring the mobile device to be in an orientation mode. The rotation icon 80 is non-overlapping with the image having the text area; see Figs. 17-18; additionally the soft keys/icons are overlapped with the image having the text area and the icons are displayed without requiring the mobile device to be in any particular orientation mode; column 12, lines 1-35 and column 6, lines 9-20).*

Uyehara discloses an orientation key 80 and a plurality of software controlled markers 240-246 in response to the pressing of the orientation key 80 to control the rotation orientation of the image. The markers are software control keys (soft keys) in which the user can tap or touch (e.g., column 12, lines 20-21 and column 12, lines 50-57). However, the markers are displayed regardless of the orientation mode of the mobile communication device and thus are displayed without requiring the mobile device in any particular orientation mode.

The markers include the first and second orientation markers performing the same function as the first and second direction keys of performing clockwise or counter-clockwise rotation of the image (See column 6, lines 10-36). The plurality of markers also include the third and fourth orientation markers performing the same function as the third and fourth direction keys of performing 180 degree rotation or 0 degree rotation to return to its original orientation (column 6, lines 21-36). These four markers are software controlled to indicate direction or orientation in which the first image in Fig. 17 is rotated.

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Although Uyehara does not explicitly disclose the graphical orientation markers 240-246 are not overlapping with the image having the text area, Uyehara explicitly teaches the rotation icon 80 and hotkey icon 82 are displayed in a second display area so as not to overlap with the first display area for displaying the image. It also needs to be shown that the prior art explicitly teaches a scaled version of the image. However, Uyehara discloses in Fig. 18 that the entire texts of the first image in Fig. 17 are rotated and presented in Fig. 18 which inherently requires the rotated image to be re-sized so as to fit into the limited display area of the mobile device.

Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5). Register discloses other claim limitations set forth in the claim 51 as well.

Moreover, Song discloses all the claim limitations of displaying a rotated version of the image on the display screen (Figs. 8A-8E), in response to a user interacting with the mobile communication terminal to affirmatively control direction of rotation for the image (Figures 8A-8E), wherein the image is rotated (Fig. 8D), relative to the display screen, at approximately a ninety degree angle and resized (Fig. 8C) so that the rotated image is displayed in entirety in a first display area of the display screen, wherein the rotated image comprises a scaled version of the image, and wherein the rotated image is a scaled version of the image in its entirety (*Figs. 8A-8E and column 6-7; Figs. 8A-8E wherein the action of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be*



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*arbitrarily re-sized such that  $C = A$  and  $D$  can be resized to be any dimension including the value determined by  $A * A/B$ ), and*

Displaying at least first and second icons in a second display area of the display screen (Figs. 8A-8E), wherein the first and second display areas are non-overlapping (Figs. 8A-8E), and wherein the first and second icons are associated with functions for controlling image display on the mobile communication terminal and wherein the second display area represented by an area formed between at least one edge of the display screen and one edge of the image, in response to rotating and resizing the image (Figs. 8A-8E and column 6-7 wherein the second display area is the defined by the display area unoccupied by the image including the icon area 34 in the display screen 32).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have placed the software controlled markers of Uyehara and icon area of Song outside the images to be rotated according to the teaching of Register that the soft keys are placed outside of the images to be rotated. The references teach the rotation of the images in accordance with the icons or soft keys. Placing the soft keys or icons outside the images to be rotated is old and well known in the art as evidenced in the Register and Song. Uyehara teaches or suggests the claim limitation by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated. Uyehara at least teaches some icons are outside the display images to be rotated (See Figs. 17-18).

Moreover, whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that

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locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method allowing a user to select the icons outside of the images in order not to obscure the images with the icons and these motivation statements can be found in Register and Uyehara (See Uyehara Figs. 17-18 and column 6, lines 21-36 and Register Figs. 4-5) because Uyehara teaches or suggests the claim limitation of the icons to be non-overlapping with the displayed images by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

Claim 52:

Uyehara is silent to the claim limitation "wherein the image and the rotated image have the approximately same aspect ratio."

This claim limitation is readily found in Song Figs. 8D-8E.

Uyehara discloses the first image in Fig. 17 having a height C and a width D and the displayed image of Fig. 18 also has height C and width D. In view of the above teaching of Uyehara, **the rotated image in Fig. 18 has the same aspect ratio as the image in Fig. 17.**

Therefore, Uyehara at least implicitly teaches or suggests the claim limitation wherein the second image has the same width-height aspect ratio as the first image.

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One of the ordinary skill in the art would have been motivated to maintain the same width-height aspect ratio for the rotated second image as the first image such that the original image remains un-scaled while being rotated (See Register Figs. 1-5 and Uyehara Figs. 17-18 and Song Figs. 8A-8E).

Claim 56:

The claim 56 encompasses the same scope of invention as that of the claim 51 except additional claim limitation of a soft key. However, Register, Uyehara and Song further disclose the claim limitation of a soft key (Register Figs. 4-5 and Uyehara Figs. 17-18; column 6, lines 9-20 and Song Figures 8A-8E).

Re Claims 57 and 64:

Uyehara teaches a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying an image on a display screen of a hand-held mobile communication terminal in a first orientation relative to the display screen (See Figs. 17-18), wherein the first image comprises a photographic image (See column 4, lines 60-65);

Displaying a rotated version of the image on the display screen in response to a user interacting (e.g., softkeys, hotkey, orientation key etc; column 12, lines 1-35 and column 6, lines 9-20) the hand-held mobile communication terminal, wherein the rotated image is displayed in a second orientation relative to the display screen, and wherein the second orientation is different from the first orientation (Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20), and

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wherein at least one of a width and a height of the rotated image is adjusted in size so that the rotated image is displayed in entirety in the first display area of the display screen and has approximately same aspect ratio as the image in an un-rotated state (Figs. 17-18).

Uyehara is silent to the claim limitation “wherein the rotated image and the image have the approximately same aspect ratio”.

Register teaches a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying an image on a display screen of a hand-held mobile communication terminal in a first orientation relative to the display screen (See Figs. 4-5), wherein the first image comprises a photographic image (See Figs. 4-5);

Displaying a rotated version of the image on the display screen, in response to a user interacting the hand-held mobile communication terminal (column 3-4 and Figs. 4-5 having keys on a keypad), wherein the rotated image is displayed in a second orientation relative to the display screen, wherein the second orientation is different from the first orientation (Figs. 4-5), and wherein at least one of a width and a height of the rotated image is adjusted in size so that the rotated image is displayed in entirety in a first display area of the display screen and has approximately same aspect ratio as the image in an un-rotated state (Figs. 4-5).

Song teaches the claim limitation of displaying in a second orientation relative to the display screen, wherein the second orientation is different from the first orientation (Figs. 8A-8E), and wherein at least one of a width and a height of the rotated image is adjusted in size so that the rotated image is displayed in entirety in a first display area of the display screen and has approximately same aspect ratio as the image in an un-rotated state (Figs. 8A-8E).

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Uyehara discloses the first image in Fig. 17 having a width C and a height D and the displayed image of Fig. 18 also has width C and height D. In view of the above teaching of Uyehara, **the rotated image in Fig. 18 has the same aspect ratio as the image in Fig. 17.**

Therefore, Uyehara at least implicitly teaches or suggests the claim limitation wherein the second image has the same width-height aspect ratio as the first image.

One of the ordinary skill in the art would have been motivated to maintain the same aspect ratio for the rotated second image as the first image such that the original image remains un-scaled while being rotated (See Register Figs. 1-5 and Uyehara Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20 and Song Figs. 8A-8E).

Claim 58:

Although Uyehara does not explicitly disclose the graphical orientation markers 240-246 are not overlapping with the image having the text area, Uyehara explicitly teaches the rotation icon and hotkey icon 82 are displayed in a second display area.

Register discloses icons are separately displayed from the image areas (See Register Figs. 4-5).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have modified the software controlled markers of Uyehara with any forms of keys. Whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the

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orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method (Uyehara column 6, lines 21-36 and Register Figs. 4-5).

Claim 59:

The claim 59 encompasses the same scope of invention as that of the claim 58 except additional claim limitation that the second display area is positioned between the first display area and at least one edge of the display screen. However, Uyehara further discloses the claim limitation that the second display area is positioned between the first display area and at least one edge of the display screen (Uyehara Figs. 17-18; Uyehara Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20).

Claim 61:

The claim 61 encompasses the same scope of invention as that of the claim 58 except additional claim limitation of a soft key. However, Register and Uyehara further discloses the claim limitation of a soft key (Register Figs. 4-5 and Uyehara Figs. 17-18 and column 6, lines 9-20).

Claim 62:

The claim 62 encompasses the same scope of invention as that of the claim 57 except additional claim limitation that the second orientation corresponds to a clockwise rotated version of the first image relative to the first orientation. However, Register and Uyehara further disclose

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the claim limitation that the second orientation corresponds to a clockwise rotated version of the first image relative to the first orientation (Register column 3, lines 5-10; Uyehara column 12, lines 1-35 and Figs. 17-18).

Claim 63:

The claim 63 encompasses the same scope of invention as that of the claim 57 except additional claim limitation that the second orientation corresponds to a counter-clockwise rotated version of the first image relative to the first orientation. However, Register and Uyehara further disclose the claim limitation that the second orientation corresponds to a counter-clockwise rotated version of the first image relative to the first orientation (Register column 3, lines 5-10; Uyehara column 12, lines 1-35 and Figs. 17-18).

Re Claims 53 and 60:

Register discloses the second image in Fig. 5 has a width C and a height D and the first image in Fig. 4 has width A and a height B in which the width C of the second image corresponds to the width A of the display, and the height D of the second image corresponds to the height B. It would have been obvious from the first image of Fig. 4 and the second image of Fig. 5 to see that C is approximately equal to A and D is approximately equal to B. Thus, D is approximately equal to  $A \cdot A/B$  as claimed when  $A=B$ . Song teaches at Figs. 8A-8E that the action of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be arbitrarily re-sized such that  $C = A$  and D can be resized to be any dimension including the value determined by  $A \cdot A/B$ .

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Claims 51-53, 56-63 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uychara et al. U.S. Patent No. 6,154,214 (hereinafter Uychara) in view of Register U.S. Patent No. 5,661,632 (hereinafter Register) and Song US Patent No. 6,748,185 (hereinafter Song) and Kojima et al. U.S. Patent No. 5,566,294 (hereinafter Kojima).

Re Claim 71:

Uychara teaches a method comprising:

Displaying an image on a display screen of a mobile device configured to communicate voice data in a wireless communication network, wherein the display screen has a first length A and a first length B, and wherein the image has a third length C and fourth length D (See column 4, lines 60-65 and Figs. 17-18 wherein the text display area has a length C and a length D and the display screen area has a length A and a length B);

Displaying at least a first directional key on the display screen (e.g., softkeys, hotkey, orientation key etc; column 12, lines 1-35 and column 6, lines 9-20; see the directional keys in Figs. 17-18);

Rotating the image in a first direction, in response to user interaction with the mobile device, wherein the first directional key flickers to indicate a change in the image's orientation (e.g., column 12, lines 1-35 and column 6, lines 9-20 and Figs. 17-18, flickering of icons is inherently taught in Figs. 17-18 of Uychara for soft keys because the color of the soft keys changes with respect to the pressing of the directional key), and



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Uyehara is silent to the claim limitation “Resizing the rotated image so that C is approximately equal to A and D is approximately equal to A and D is approximately equal to square of A divided by B, in response to determining that the rotated image does not fit entirely on the display screen”.

Song teaches the claim limitation of resizing the rotated image so that C is approximately equal to A and D is approximately equal to A and D is approximately equal to square of A divided by B, in response to determining that the rotated image does not fit entirely on the display screen (*Figs. 8A-8E wherein the action of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be arbitrarily re-sized such that  $C = A$  and  $D$  can be resized to be any dimension including the value determined by  $A * A/B$* ).

Song further teaches a method comprising:

Displaying an image on a display screen of a mobile device, wherein the display screen has a first length A and a first length B, and wherein the image has a third length C and fourth length D (See Figs. 8A-8E);

Displaying at least a first directional key on the display screen (e.g., Figs. 8A-8E);

Rotating the image in a first direction, in response to user interaction with the mobile device, wherein the first directional key flickers to indicate a change in the image's orientation (e.g., Figs. 8A-8E), and

Resizing the rotated image so that C is approximately equal to A and D is approximately equal to A and D is approximately equal to square of A divided by B, in response to determining that the rotated image does not fit entirely on the display screen (*Figs. 8A-8E wherein the action*

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*of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be arbitrarily re-sized such that  $C = A$  and  $D$  can be resized to be any dimension including the value determined by  $A \cdot A/B$ ).*

Register discloses the second image in Fig. 5 has a width  $C$  and a height  $D$  and the first image in Fig. 4 has width  $A$  and a height  $B$  in which the width  $C$  of the second image corresponds to the width  $A$  of the display, and the height  $D$  of the second image corresponds to the height  $B$ . It would have been obvious from the first image of Fig. 4 and the second image of Fig. 5 to see that  $C$  is approximately equal to  $A$  and  $D$  is approximately equal to  $B$ . Thus,  $D$  is approximately equal to  $A \cdot A/B$  as claimed when  $A=B$ . Song teaches at Figs. 8A-8E that the action of scaling and rotating set forth in Figs. 8A-8E allows the scaling of the image in which the size of the rotated or un-rotated image can be arbitrarily re-sized such that  $C = A$  and  $D$  can be resized to be any dimension including the value determined by  $A \cdot A/B$ .

Uyehara discloses the first image in Fig. 17 having a width  $C$  and a height  $D$  and the displayed image of Fig. 18 also has width  $C$  and height  $D$ . In view of the above teaching of Uyehara, **the rotated image in Fig. 18 has the same aspect ratio as the image in Fig. 17.** Therefore, Uyehara at least implicitly teaches or suggests the claim limitation wherein the rotated image has the same width-height aspect ratio as the un-rotated image.

One of the ordinary skill in the art would have been motivated to maintain the same aspect ratio for the rotated second image as the first image such that the original image remains un-scaled while being rotated (See Register Figs. 1-5 and Uyehara Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20 and Song Figs. 8A-8E).

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As to the claim limitation of key flickering, it is commonly known in the art that icon keys can be animated or color-changed to reflect the user's action of pressing the icon keys. Kojima explicitly teaches key flickering in Paragraph 0045. Thus, it would have been obvious to one of the ordinary skill in the art to have made icon keys flickering in view of the teaching of Kojima so as to provide a color change to the icons to indicate the processing command (Kojima Paragraph 0045).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Jin-Cheng Wang/

Primary Examiner, Art Unit 2628